

We have studied the differences resulting from the use of Climatology vs. NRT ancillary Meteorological & Ozone data to process SeaWiFS L1A files. The data used for this comparison has been restricted to the Gulf of Mexico regions for continuity and meaningful comparison across days. The three graphs created for each available day are as follows. The NRT ancillary data were downloaded from the oceancolor.gsfc.nasa.gov site. The same day ancillary files are always used.

- Scatter plot of chlorophyll for all pixels in the processed L2 data output. The x-axis is Chlorophyll retrieved using the NRT Met/Ozone ancillary data and the y-axis the chlorophyll retrieved using Climatology ancillary data.
- Histogram of the difference of the two retrieved chlorophyll values for each pixel.
- The difference in chlorophyll is plotted on the y-axis vs. the retrieved Chlorophyll value using NRT ancillary data. *(Since the maximum value of the difference NRT-CLMT is when CLMT retrieved value is zero, the upper limit to this difference is the NRT retrieved value as seen by the upper bounding limit. For any given value on x-axis such a limit does not exist when CLMT retrieved values are larger than NRT retrieved values. Note: Chlorophyll values cannot be negative)*

A second set of plots comprises the time series data of the mean, median and sigma of the retrieved Chlorophyll differences (ancillary Climate vs. NRT) seen for the same region over N successive days.